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# Spreads in Farm-Retail Prices of WHITE BREAD



UNITED STATES DEPARTMENT OF AGRICULTURE  
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Bread prices have increased in each of the last 16 years. By 1963, average retail prices were 8.1 cents per pound loaf above the 1947-49 average, an increase of 60 percent. The Consumer Price Index for all foods purchased for home consumption rose 20 percent in this period. The largest annual rise, 1.4 cents, occurred between 1950 and 1951. The smallest rise, 0.1 cent, took place between 1948 and 1949.

The farm value of wheat and all other ingredients used in making a pound of bread declined 0.2 cent between 1947-49 and 1963. Thus, the marketing spread for bread increased 8.3 cents, the amount of the rise in the retail price plus the decline in the farm value of raw materials. The rise in bread prices corresponds closely to the rise in costs of producing and distributing bakery products.

This report shows the changes in bread prices, spreads, and costs from 1947-49 through 1963. It is one of several reports on food marketing costs and spreads prepared by the U.S. Department of Agriculture, and is part of a broad program of research designed to reduce the cost of marketing farm products.

The Department keeps current data on bread prices and spreads, and will continue to publish them periodically in "The Marketing and Transportation Situation."

This publication was prepared by J. C. Eiland, agricultural economist, Economic Research Service. It supersedes *MARKETING MARGINS FOR WHITE BREAD*, Miscellaneous Publication 712, revised November 1962.

*Washington, D.C.*

*September 1964*



The difference between the price the farmer gets for a given quantity of wheat and other ingredients and the price the consumer pays for the bread that can be made from them is termed the "PRICE SPREAD," the "FARM-RETAIL SPREAD," or "MARKETING SPREAD." The marketing spread includes all charges for handling, storing, transporting, and processing wheat and other ingredients, and for baking, distributing, and retailing the bread.

# Spreads in Farm-Retail Prices of White Bread

*Marketing Economics Division, Economic Research Service*

Bread prices have risen every year since 1945. Consumers in 1963 paid an average price of 21.6 cents for a 1-pound loaf of bread, a new high, 60 percent above the 13.5 cents paid in 1947-49. The increase in 1963 was 0.4 cent a loaf

over 1962. Most of the rise in retail bread prices since 1947-49 has come from increases in the baker's spread. The rise took place without any significant changes in services rendered such as have occurred for a number of other food items.

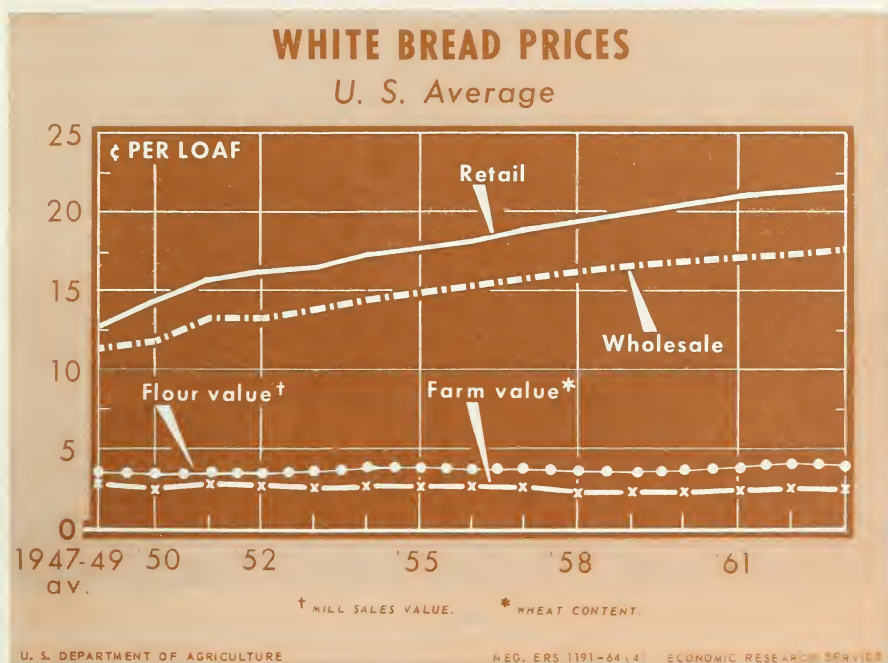


FIGURE 1

During 1947-49, if the farmer had exchanged a bushel of wheat for white bread at the retail store, he would have received on the average about 16 1-pound loaves. Due to an increase in the retail price of bread and a decline in the farm price of wheat, he would have received only 9 1-pound loaves for his bushel of wheat in 1963. An increase in the yield of flour extracted from wheat milled resulted in a bushel of wheat producing enough flour for about 67.9 1-pound loaves in 1963, or enough for one more loaf than in 1947-49.



## FARMER'S SHARE DECREASED



The farm value decreased from 3.3 cents in 1947-49 to 3.1 cents in 1963 (fig. 2). This decrease in farm value plus the increase in the retail price was accompanied by an increase in marketing charges. Although the farm value of the ingredients was 0.3 cent higher in 1963 than the record low level of the period in 1959 and 1960, the

farmer's share of the retail price declined to about 14 percent in 1963 from 24 percent in 1947-49 (table 1).

The farmer's percentage share of the annual retail price has decreased in 9 of the 16 years since 1947, increased once, and remained unchanged 6 years.

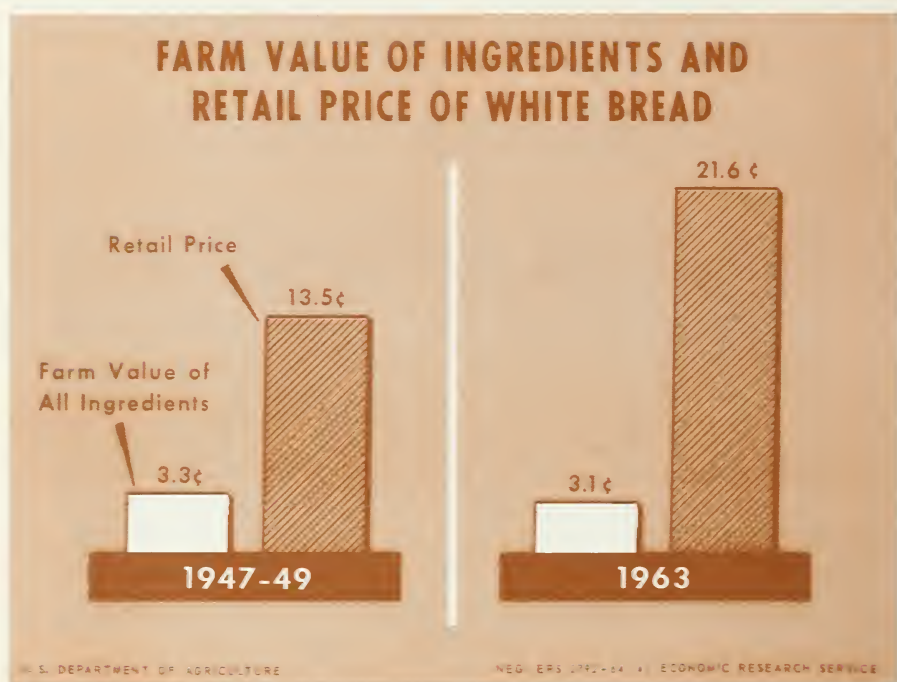


FIGURE 2

## WHY PRICE SPREAD WIDENED

The widening of the price spread between 1947-49 and 1963 was due primarily to higher costs for baking and distributing bread. Hourly earnings of production workers in bakeries in 1963 were about \$1.18 higher than in 1947-49.

Much of this added cost appears to have been passed on to consum-

ers. Other noningredient costs such as wrapping materials also rose. Retailers' spreads have increased. Although hourly earnings in the flour milling industry increased, flour prices did not change as much as bread prices. Flour prices tended to vary closely with the cost of wheat to the miller

## Who Received It \*

### CONSUMER'S BREAD PRICE



FIGURE 3

until 1956 when an upward trend started in flour millers' spreads (table 2).

Rises in cost of items used by firms in the marketing process, and thus their spreads accounted for the

60-percent increase in the retail price of bread between 1947-49 and 1963. During this period the baker-wholesaler's spread rose 5.8 cents and accounted for over 70 percent of the increase in the retail price.

TABLE 1.—Distribution of retail price of bread, by recipients, 1947-49 and 1963

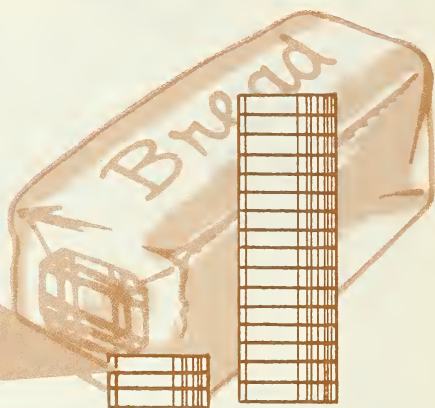
Recipient (Amounts received to cover profits and costs, except for ingredients and purchases for resale)	1947-49		1963	
	Actual amount	Percent-age	Actual amount	Percent-age
	<i>Cents</i>	<i>Percent</i>	<i>Cents</i>	<i>Percent</i>
Farmers.....	3.3	24	3.1	14
Grain elevators, transportation agencies, and processors of nonflour ingredients.....	1.2	9	1.5	7
Flour mills.....	.6	5	1.0	5
Baker-wholesalers.....	6.0	44	11.8	55
Grocers.....	2.4	18	4.2	19
Total.....	13.5	100	21.6	100

In 1963 estimated baker-wholesaler labor costs, excluding fringe benefits, for producing and distributing a 1-pound loaf of bread were 3.5 cents higher than in 1945 (table 3). Labor cost increases accounted for nearly 50 percent of the rise in the baker-wholesaler spread.

His spread rose from 54 to 68 percent of the wholesale price from 1947-49 to 1963.

The miller's flour spread was about stable until 1956 when it began to increase. Retailers' and processors' spreads increased moderately during this period.

## **FARMER GETS SMALL PART OF BREAD DOLLAR**



Only 3.1 cents of the average price—21.6 cents—paid by consumers for a pound of white bread in 1963 was returned to farmers for wheat and other ingredients of farm origin such as lard, sugar, and dried milk (table 1). Wheat farmers received about 2.5 cents in 1963, 2.7 cents in 1947-49, and a low of 2.3 cents in 1958-60. Even if the farmer had donated his wheat, white bread still would have cost consumers about 19.1 cents per loaf in 1963. Alternatively, if the bread price had risen only as much as all foods for home consumption, the retail price of bread would have been about 16.2 cents a pound loaf in 1963 instead of 21.6 cents.

Or, if the farmer had received an 81-percent increase in the price of wheat from 1947-49 to 1963—the same as marketing spreads increased—he would have received about \$3.87 per bushel, and a loaf of bread would have cost the consumer about 24.4 cents in 1963. This would have added 2.8 cents to the retail price of bread, and the wheat farmer would have received about 5.3 cents of the average retail price in 1963.

The farm value of other ingredients has fluctuated around 0.6 cent per pound of bread since 1947-49. The low of 0.5 cent was reached in 1950, 1955, and 1959-62. The high point was 0.7 cent in 1951.



## FARMER'S PRICES DON'T GOVERN BREAD PRICES

Farm values of wheat, sugarbeets or sugarcane, milk, and hogs (lard) are such a small portion (14 percent in 1963) of the retail price of bread that large fluctuations in farm prices can take place with little effect on the price of the finished product.

The farmer's share is not significantly altered by the choice of bread formula because the amounts

of nonflour ingredients are small. To 100 pounds of flour are added  $2\frac{1}{2}$  to  $4\frac{1}{2}$  pounds of lard, 6 to 9 pounds of sugar, up to 5 pounds of milk, plus minor ingredients and water to produce 150 to 165 pounds of baked bread. Shifts of ingredients within the ranges possible do not have a significant effect on the farmer's share, or the price of bread.

## MILLER'S FLOUR SPREAD INCREASES SINCE 1955

From 1947-49 through 1955, the miller's flour spread for milling the wheat needed to produce the 0.641 pound of flour used in making a 1-pound loaf of bread was stable at 0.6 cent (table 2). After 1955, the miller's flour spread gradually increased. In 1963, it was 1.0 cent per pound loaf of bread, 67 percent higher than in 1955.

Despite an estimated 106 percent increase in hourly earnings of grain

mill production workers between 1947-49 and 1963, labor costs of producing a unit of flour have increased only moderately, compared to the baking industry, or a little over 25 percent. The increase in the miller's flour spread since 1955 appears to be associated with an increase in costs and with an increase in the amount of flour extracted per bushel of wheat milled.





TABLE 2.—White pan bread: Estimated retail and wholesale prices, and estimated farm value of ingredients

Year and quarter	Retail price <sup>2</sup>	Retail spread <sup>3</sup>	Whole-sale price <sup>4</sup>	Baker's spread <sup>5</sup>
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
1947-49 average.....	13. 5	2. 4	11. 1	0. 0
1950.....	14. 3	2. 7	11. 6	0. 0
1951.....	15. 7	2. 7	13. 0	0. 0
1952.....	16. 0	3. 0	13. 0	0. 0
1953.....	16. 4	2. 9	13. 5	0. 0
1954.....	17. 1	2. 7	14. 4	0. 0
1955.....	17. 5	2. 6	14. 9	0. 0
1956.....	17. 9	2. 6	15. 3	0. 0
1957.....	18. 8	3. 1	15. 7	0. 0
1958.....	19. 3	3. 1	16. 2	0. 0
1959.....	19. 7	3. 1	16. 6	0. 0
1960.....	20. 3	3. 4	16. 9	0. 0
1961.....	20. 9	3. 8	17. 1	0. 0
1962.....	21. 2	4. 0	17. 2	0. 0
1963.....	21. 6	4. 2	17. 4	0. 0
1962:				
January-March.....	21. 1	3. 9	17. 2	0. 0
April-June.....	21. 1	3. 9	17. 2	0. 0
July-September.....	21. 2	4. 1	17. 1	0. 0
October-December.....	21. 2	3. 9	17. 3	0. 0
1963:				
January-March.....	21. 6	4. 2	17. 4	0. 0
April-June.....	21. 6	4. 2	17. 4	0. 0
July-September.....	21. 6	4. 2	17. 4	0. 0
October-December.....	21. 6	4. 3	17. 3	0. 0

<sup>1</sup> The retail price, farm value, and farm-retail spread for the years 1919-56 were published in *Farm-Retail Spreads for Food Products*, U.S. Dept. of Agr., Misc. Pub. 741, Nov. 1957, p. 117. Comparable data for the other series in this table are not available for the years before 1947.

<sup>2</sup> Average of retail prices in urban areas reported by Bureau of Labor Statistics, with adjustments for 1954 and 1955.

<sup>3</sup> Spread between retail and wholesale prices.

<sup>4</sup> Derived from wholesale prices published by the Bureau of Labor Statistics and trade data.

<sup>5</sup> Spread between wholesale price and cost to the baker of all ingredients.

<sup>6</sup> Cost of flour, shortening, nonfat dry milk, sugar, and other ingredients in a pound of bread, adjusted to level of cost to baker as reported in the Census of Manufactures.

<sup>7</sup> Weighted average wholesale value of 0.641 lb. of several types of bread flour in 3 markets, adjusted to the level of cost to baker as reported in the Census of Manufactures.

sale prices of a 1-pound loaf, retailers', baker-wholesaler's, miller's and average 1947-1949, annual 1950-1963, and quarterly 1962-63.<sup>1</sup>

Cost to baker		Mill sales value of flour <sup>8</sup>	Miller's flour spread <sup>9</sup>	Cost of wheat to miller <sup>10</sup>	Other spreads <sup>11</sup>	Farm value	
All ingredients <sup>6</sup>	Flour <sup>7</sup>					Wheat <sup>12</sup>	All ingredients <sup>13</sup>
Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
5.1	3.5	3.4	0.6	2.8	1.2	2.7	3.3
4.7	3.4	3.3	.6	2.7	1.1	2.5	3.0
5.2	3.6	3.4	.6	2.8	1.3	2.6	3.3
4.9	3.5	3.4	.6	2.8	1.1	2.6	3.2
5.1	3.7	3.5	.6	2.9	1.4	2.5	3.1
5.5	4.0	3.8	.6	3.2	1.6	2.7	3.3
5.4	4.0	3.8	.6	3.2	1.6	2.7	3.2
5.3	3.9	3.7	.7	3.0	1.4	2.6	3.2
5.4	3.9	3.7	.8	2.9	1.4	2.6	3.2
5.3	3.9	3.6	.8	2.8	1.6	2.3	2.9
5.1	3.8	3.5	.8	2.7	1.5	2.3	2.8
5.3	3.9	3.6	.9	2.7	1.6	2.3	2.8
5.4	4.0	3.7	1.0	2.7	1.5	2.4	2.9
5.7	4.3	4.0	1.0	3.0	1.6	2.6	3.1
5.6	4.1	3.9	1.0	2.9	1.5	2.5	3.1
5.5	4.1	3.8	.9	2.9	1.6	2.5	3.0
5.6	4.2	4.0	.9	3.1	1.5	2.7	3.2
5.8	4.4	4.2	1.2	3.0	1.4	2.6	3.2
5.7	4.3	4.0	1.0	3.0	1.6	2.6	3.1
5.6	4.2	3.9	.9	3.0	1.5	2.6	3.2
5.7	4.2	3.9	1.0	2.9	1.5	2.6	3.2
5.4	3.9	3.6	.9	2.7	1.7	2.3	2.8
5.7	4.1	3.9	1.0	2.9	1.6	2.5	3.1

<sup>8</sup> Weighted average wholesale value of 0.641 lb. of several types of bread flour in 3 markets, adjusted to mill sales level as reported in the Census of Manufactures.

<sup>9</sup> Spread between sales value of flour and cost of wheat to miller.

<sup>10</sup> Weighted average wholesale value in 6 markets of major classes and grades of wheat used for milling bread flour, adjusted to level of cost to miller as reported in the Census of Manufactures and further adjusted to eliminate imputed value of millfeed products.

<sup>11</sup> Spread or charges for transporting, handling, and storing all ingredients and for processing ingredients other than flour. This spread is a residual figure.

<sup>12</sup> Returns to farmers for wheat less imputed value of millfeed byproducts, based on average local market prices received by farmers for all wheat; return for 0.882 lb. since July 1957, and 0.894 lb. before that date.

<sup>13</sup> Value at prices received by farmers, less byproduct allowances, for the quantity of wheat and other farm products yielding ingredients used in a pound loaf of white bread.







TABLE 2.—White pan bread: Estimated retail and wholesale prices of a 1-pound loaf, retailers', baker-wholesaler's, miller's and other spreads, and estimated farm value of ingredients, average 1947-1949, annual 1950-1963, and quarterly 1962-63.<sup>1</sup>

Year and quarter	Retail price <sup>2</sup>	Retail spread <sup>3</sup>	Whole-sale price <sup>4</sup>	Baker-whole-saler spread <sup>5</sup>	Cost to baker		Mill sales value of flour <sup>8</sup>	Miller's flour spread <sup>9</sup>	Cost of wheat to miller <sup>10</sup>	Other spreads <sup>11</sup>	Farm value	
					All ingredients <sup>6</sup>	Flour <sup>7</sup>					Wheat <sup>12</sup>	All ingredients <sup>13</sup>
1947-49 average.....	Cents 13.5	Cents 2.4	Cents 11.1	Cents 6.0	Cents 5.1	Cents 3.5	Cents 3.4	Cents 0.6	Cents 2.8	Cents 1.2	Cents 2.7	Cents 3.3
1950.....	14.3	2.7	11.6	6.9	4.7	3.4	3.3	.6	2.7	1.1	2.5	3.0
1951.....	15.7	2.7	13.0	7.8	5.2	3.6	3.4	.6	2.8	1.3	2.6	3.3
1952.....	16.0	3.0	13.0	8.1	4.9	3.5	3.4	.6	2.8	1.1	2.6	3.2
1953.....	16.4	2.9	13.5	8.4	5.1	3.7	3.5	.6	2.9	1.4	2.5	3.1
1954.....	17.1	2.7	14.4	8.9	5.5	4.0	3.8	.6	3.2	1.6	2.7	3.3
1955.....	17.5	2.6	14.9	9.5	5.4	4.0	3.8	.6	3.2	1.6	2.7	3.2
1956.....	17.9	2.6	15.3	10.0	5.3	3.9	3.7	.7	3.0	1.4	2.6	3.2
1957.....	18.8	3.1	15.7	10.3	5.4	3.9	3.7	.8	2.9	1.4	2.6	3.2
1958.....	19.3	3.1	16.2	10.9	5.3	3.9	3.6	.8	2.8	1.6	2.3	2.9
1959.....	19.7	3.1	16.6	11.5	5.1	3.8	3.5	.8	2.7	1.5	2.3	2.8
1960.....	20.3	3.4	16.9	11.6	5.3	3.9	3.6	.9	2.7	1.6	2.3	2.8
1961.....	20.9	3.8	17.1	11.7	5.4	4.0	3.7	1.0	2.7	1.5	2.4	2.9
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1963.....	21.6	4.2	17.4	11.8	5.6	4.1	3.9	1.0	2.9	1.5	2.5	3.1
1962:												
January-March.....	21.1	3.9	17.2	11.7	5.5	4.1	3.8	.9	2.9	1.6	2.5	3.0
April-June.....	21.1	3.9	17.2	11.6	5.6	4.2	4.0	.9	3.1	1.5	2.7	3.2
July-September.....	21.2	4.1	17.1	11.3	5.8	4.4	4.2	1.2	3.0	1.4	2.6	3.2
October-December.....	21.2	3.9	17.3	11.6	5.7	4.3	4.0	1.0	3.0	1.6	2.6	3.1
1963:												
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April-June.....	21.6	4.2	17.4	11.7	5.7	4.2	3.9	1.0	2.9	1.5	2.6	3.2
July-September.....	21.6	4.2	17.4	12.0	5.4	3.9	3.6	.9	2.7	1.7	2.3	2.8
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<sup>4</sup> Derived from wholesale prices published by the Bureau of Labor Statistics and trade data.

<sup>5</sup> Spread between wholesale price and cost to the baker of all ingredients.

<sup>6</sup> Cost of flour, shortening, nonfat dry milk, sugar, and other ingredients in a pound of bread, adjusted to level of cost to baker as reported in the Census of Manufactures.

<sup>7</sup> Weighted average wholesale value of 0.641 lb. of several types of bread flour in 3 markets, adjusted to the level of cost to baker as reported in the Census of Manufactures.

<sup>8</sup> Weighted average wholesale value of 0.641 lb. of several types of bread flour in 3 markets, adjusted to mill sales level as reported in the Census of Manufactures.

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<sup>12</sup> Returns to farmers for wheat less imputed value of millfeed byproducts, based on average local market prices received by farmers for all wheat; return for 0.882 lb. since July 1957, and 0.894 lb. before that date.

<sup>13</sup> Value at prices received by farmers, less byproduct allowances, for the quantity of wheat and other farm products yielding ingredients used in a pound loaf of white bread.



## HANDLING, TRANSPORTATION, AND OTHER PROCESSING CHARGES UP

Between the farm gate and the consumer's table, several handling and processing steps take place and each has a cost. The difference between the farm value of ingredients and their cost to the bakery, less the mill spread, constitutes marketing charges for storage, insurance, transportation, and handling all ingredients, and for processing ingredients other than flour. After 1947-49, these charges fluctuated between 1.1 cents and 1.6 cents a loaf and moved slowly upward to 1.5 cents in 1963.

Despite this upward trend, charges for performing these essential services remain a small part of the price of a loaf of bread. After a bushel of wheat is delivered by the farmer to a country elevator, it moves to a flour mill as much as 1,200 miles away, perhaps stopping at a terminal elevator on the way, all for approximately 59 cents. The cost of rail transportation of wheat and flour in 1959 was a little over 0.5 cent per loaf of bread. This was possible despite an increase of 37 percent in rail rates on wheat between 1947-49 and 1962.

### WHOLESALE BAKERY SPREADS AND COSTS UP



From the mill, flour moves by rail or truck to the bakery. There the number of services performed multiplies swiftly. Before the finished loaf of bread is placed in the grocery, its ingredients have been stored, processed for baking, and baked; and the bread has been sliced, wrapped, and delivered.

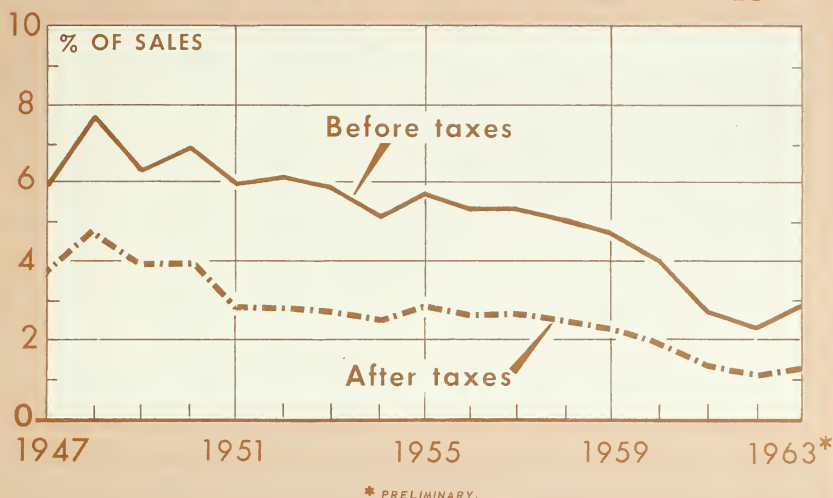
The bakery spread consists of the difference between the cost of ingredients to the bakery and the selling price of bread to either the grocer, for wholesale bakers, or to the consumer, for house-to-house,

chainstore, and retail bakeries. Wholesale bakeries account for the largest volume of baked goods. It is estimated that wholesale bakeries sold white bread to grocery stores in 1963 for approximately 17.4 cents per pound. Deducting from this the cost of ingredients (5.6 cents) gives the wholesale bakery a spread of 11.8 cents (table 2).

Hourly earnings of production workers employed in plants producing all types of bakery products rose about 103 percent between 1947-49 and 1963 (table 4). Part

As Percent of Sales

## PROFITS OF SIX MAJOR BAKING COMPANIES



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FIGURE 4

of the increase took place each year. In 1963 about 5.6 cents of the 11.8-cent baker-wholesaler's spread per loaf was used to pay wages and salaries (table 3). In 1945 wages and salaries represented about 2.0 cents of the baker's 4.4-cent spread.

In addition, fringe benefits, social security taxes, and compensation of officers together tripled during the period. In 1945, these three items combined represented about 0.2 cent per loaf and in 1963 about 0.5 cent.

The baking industry has been meeting the challenge of rising wage rates by increased production labor output through mechanization. Bulk methods of handling flour are replacing bag handling methods and are cutting costs. Flour can now be delivered in portable bins or moved by air pressure through tubes from trucks or rail

cars into storage bins, whence it flows by gravity in many instances to an automated bread production process. These improvements have offered production savings of over a cent a pound loaf of bread.

Offsetting these efforts is the growing acceptance of a 5-day delivery-selling week and provision for many of the so-called fringe benefits. Traditionally, bakery products have been delivered 6 days a week. Many bakeries use either of two alternatives. By one, an extra driver-salesman is hired for every five routes and he substitutes for a different routeman each day, Monday through Friday. This system adds the extra cost of the "swingman," or substitute, to the bread distribution cost, plus the difficult-to-measure factor of possibly lower productivity of the swingman who travels a different

**TABLE 3.—Estimated wholesale costs, spread, and price for a 1-pound loaf of white bread in the United States, 1945, 1950, 1955, and 1963.<sup>1</sup>**

Item	1945	1950	1955	1963
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Operating costs and profits:				
Wages and salaries.....	2. 0	3. 1	4. 4	5. 6
Fringe benefits, social security tax, and officers' compensation.....	0. 2	0. 3	0. 4	0. 6
Packaging and wrapping material.....	0. 5	0. 8	1. 1	1. 4
Delivery other than wages and salaries.....	0. 4	0. 5	0. 8	1. 1
Advertising, promotion, and products bought for resale.....	0. 2	0. 4	0. 7	0. 9
Other costs.....	0. 9	1. 3	1. 7	2. 0
Profits (after tax).....	0. 2	0. 5	0. 4	0. 2
Baker-wholesaler margin.....	4. 4	6. 9	9. 5	11. 8
Ingredient costs.....	2. 9	4. 7	5. 4	5. 6
Sales (price at wholesale).....	7. 3	11. 6	14. 9	17. 4

<sup>1</sup> Based on data for 18 multiple-unit and 18 single-unit wholesale bakeries presented in Costs and Margin Trends in the Baking Industry, Senate Committee on Agriculture and Forestry report, May 1, 1957; marketing spreads for white bread, published regularly by USDA; and 1963 estimates considering U.S. average prices and trends of 6 leading bakery companies.

route every day. Opposed to this is the straight 5-day plan where no merchandise is delivered on one of the midweek days. Higher losses from stale bread and greater promotion costs to retain market position are said to accompany this plan.

Productivity of the driver-salesman delivery system has been declining for years. Studies indicate that the number of loaves delivered per route per week decreased approximately 30 percent during the period 1947-58.

Payments of salaries and commissions to driver-salesmen claim about as much of the sales dollar as wage payments to plant labor. This cost factor provides chainstore bakeries with their greatest cost advantage. Often working at night when street traffic is at a minimum, the chainstore driver and helper in a semitrailer drop large quantities

of bakery goods off at stores without giving time to either cash transactions or rack display. The latter is done by store employees. In contrast, an average wholesale bakery driver-salesman calls on 50 or so large and small grocers during store hours, transacts business with the management, and strives for favorable rack display space or position. In short, the wholesale bakery delivery systems developed years ago to meet the needs of the neighborhood retail grocery have become more costly relative to sales volumes. The local wholesale bakery delivery system has come to bear a closer resemblance to a retail operation than to the high-volume cost-cutting wholesale delivery system developed by chainstore bakeries to serve their outlets.

Aside from salaries and sales commissions, selling expense in-

cludes vehicle expense, advertising, overhead, and loss from stale bread. Vehicle expense and a portion of the driver's commission often make the cost of moving a loaf of bread from a west-side city bakery to an east-side grocery store greater than the cost of transporting the wheat equivalent of the bread from western North Dakota to the east coast.

Other bakery costs per loaf also have risen (table 3). Some have more than tripled since 1945. For instance, the combined costs of advertising and promotion and of bakery products bought for resale are over four times what they were in 1945. Packaging and wrapping materials have nearly tripled. Delivery expense, other than wages and salaries, has nearly tripled, and other items have shown gains of more than 100 percent.

Profits (after taxes) per loaf for baker-wholesalers were over twice as high in 1950 as in 1945 (table 3). In 1955, they had decreased 20 percent to 0.4 cent a loaf. In 1963, they had declined by one-half and were estimated to be about the same per loaf as in 1945.

Profits (after taxes) of six leading baking companies declined from an average of 4.1 percent of sales in 1947-49 to 1.2 percent of sales in 1963 (fig. 4). Profits (after taxes) of these six leading companies declined from a high point of 18.9 percent of stockholder equity during 1947-49 to 9.3 percent in 1960 and about 5.9 percent in 1963. Profits (after taxes) for four major flour milling companies, in comparison, declined from 11.9 percent of stockholder equity during 1947-49 to 8.4 percent in 1962.

TABLE 4.—Hourly earnings of bakery production workers, 1952-63 <sup>1</sup>

Year	Actual earnings including overtime (dollars)	Index (1947-49=100)
1947-49.....	1. 15	100
1952.....	1. 43	124
1953.....	1. 51	131
1954.....	1. 60	139
1955.....	1. 66	144
1956.....	1. 74	151
1957.....	1. 81	157
1958.....	1. 90	165
1959.....	1. 99	173
1960.....	2. 09	182
1961.....	2. 18	190
1962.....	2. 26	197
1963.....	2. 33	203

<sup>1</sup> Data are for the Bakery Products Industry (Census Standard Industrial Classification 205), which consists of the Bread and Perishable Products Industry (SIC 2051) and the Biscuit and Crackers Industry (SIC 2052). Since data are unavailable for some years for SIC 2051, since over 75 percent of the employees in SIC 205 are employed in SIC 2051, and since hourly earnings for SIC 2051 are only about 5 cents per hour higher than for SIC 205, hourly earnings for SIC 205 are used to illustrate labor costs per hour of labor employed in bread production (SIC 2051)—Bureau of Labor Statistics, *Employment and Earnings*.



## RETAIL SPREAD ADVANCES WITH PRICE



Retail grocers received about 4.2 cents a loaf on an average for their services in 1963. In 1947-49, their spread was 2.4 cents. Though the retail spread has increased in cents per loaf, it has fluctuated closely around 18 percent of the retail price, the 1947-49 average. In 1963, the retail spread was 19 percent of retail price.

The much larger total sales volume of the average grocery today, compared with store volume before World War II, has enabled a slower advance in retailers' bread spreads compared with baker-wholesalers' spreads.

Retail spreads are not available by type and size of stores. But trade reports for 100 cities since

1957 indicated that prices of bread sold under a store's own label were about 4 cents per pound loaf below retail prices of wholesale bakery brand bread. These lower prices, the large volume of supermarkets, and the streamlined distribution system of bakeries serving them suggest lower retail spreads on proprietary-brand breads.

Retail spreads of house-to-house bakeries and retail bakeries also are unknown. Here the amount of personal selling and other services per pound of product reaches its maximum and it is reasonable to expect that the retail spread would exceed that of any other segment of the bread baking industry.

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